

# 6EU7

## High-Mu Twin Triode

### 9-PIN MINIATURE TYPE

For High-Fidelity Audio-Amplifier Applications Critical as to Noise and Hum

#### GENERAL DATA

##### Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC) . . . . . 6.3  $\pm$  10% volts  
Current at 6.3 volts. . . . . 0.3 amp

Direct Interelectrode Capacitances

(Each Unit, Approx.):

Grid to plate . . . . . 1.5  $\mu$ f  
Grid to cathode  
and heater. . . . . 1.6  $\mu$ f  
Plate to cathode  
and heater. . . . . 0.2  $\mu$ f

Equivalent Noise and Hum Voltage  
(Referenced to Grid, Each Unit):

Average Value (RMS) . . . . . 1.8  $\mu$ volts  
Measured in "true rms" units under the following conditions: Heater volts (AC)= 6.3; center-tap of heater transformer connected to ground; plate supply volts (DC)= 250; plate load resistor (megohms)= 0.1; cathode resistor (ohms)= 2700; cathode bypass capacitor ( $\mu$ f)= 100; grid resistor (ohms)= 0; amplifier frequency range 25 to 10000 cps.

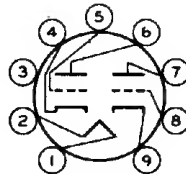
Characteristics, Class A<sub>1</sub> Amplifier (Each Unit):

Plate Voltage . . . . . 100 250 volts  
Grid Voltage . . . . . -1 -2 volts  
Amplification Factor. . . . . 100 100  
Plate Resistance (Approx.). . . . . 80000 62500 ohms  
Transconductance. . . . . 1250 1600  $\mu$ mhos  
Plate Current . . . . . 0.5 1.2 ma

##### Mechanical:

Operating Position. . . . . Any  
Maximum Overall Length. . . . . 2-3/16"  
Maximum Seated Length. . . . . 1-15/16"  
Length, Base Seat to Bulb Top (Excluding tip) 1-9/16"  $\pm$  3/32"  
Diameter. . . . . 0.750" to 0.875"  
Dimensional Outline . . . . . See General Section  
Bulb. . . . . T6-1/2  
Base. . . . . Small-Button Noval 9-Pin (JEDEC No. E9-1)  
Basing Designation for BOTTOM VIEW. . . . . 9LS

Pin 1-Heater  
Pin 2-Heater  
Pin 3-No Connection  
Pin 4-Cathode of Unit No. 2  
Pin 5-Grid of Unit No. 2



Pin 6-Plate of Unit No. 2  
Pin 7-Plate of Unit No. 1  
Pin 8-Grid of Unit No. 1  
Pin 9-Cathode of Unit No. 1



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DATA 1  
8-60

# 6EU7

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## AMPLIFIER — Class A<sub>1</sub>

*Values are for Each Unit*

### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. . . . .	330	max.	volts
GRID VOLTAGE:			
Negative-bias value. . . . .	55	max.	volts
Positive-bias value. . . . .	0	max.	volts
PLATE DISSIPATION. . . . .	1.2	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200 <sup>▲</sup>	max.	volts

### Typical Operation as Resistance-Coupled Amplifier:

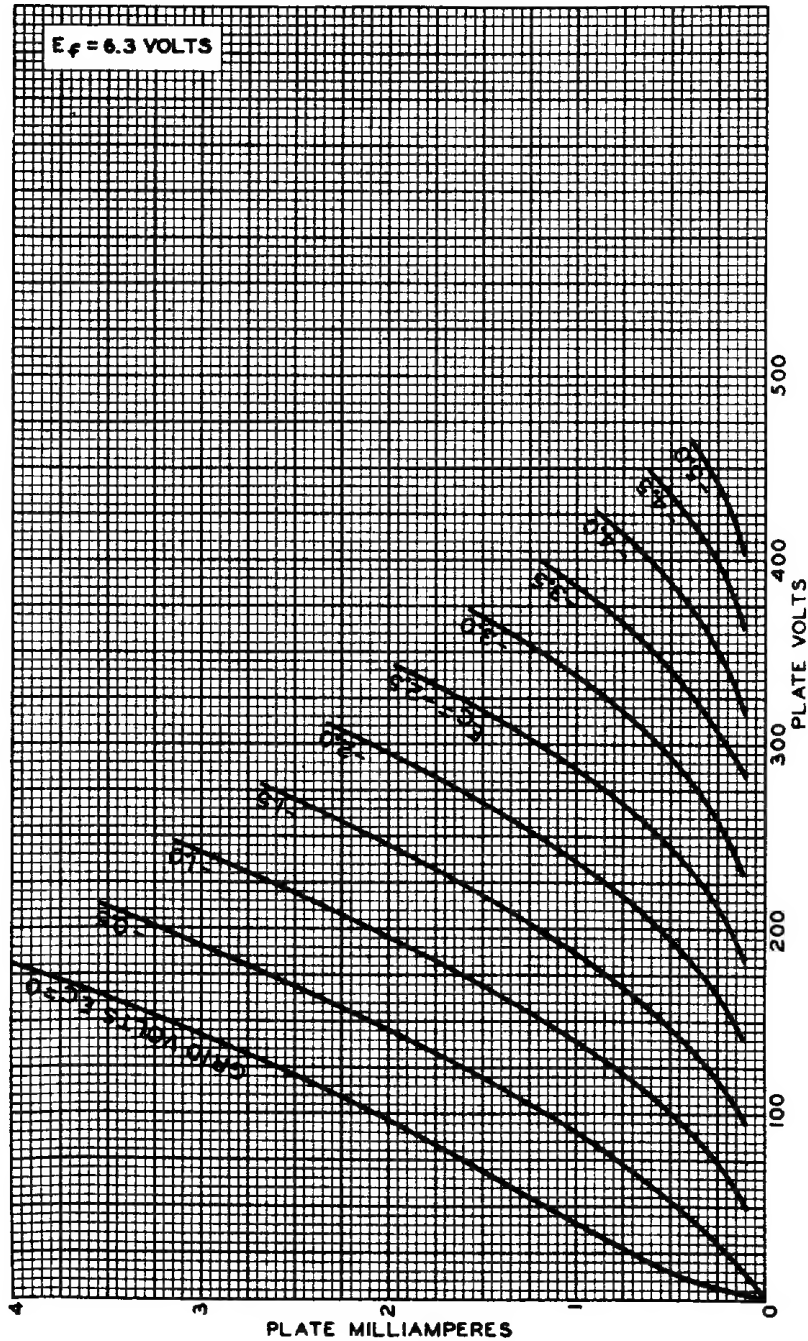
*See RESISTANCE-COUPLED-AMPLIFIER CHART No. 25  
at front of this Section*

<sup>▲</sup> The dc component must not exceed 100 volts.



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## AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-10470

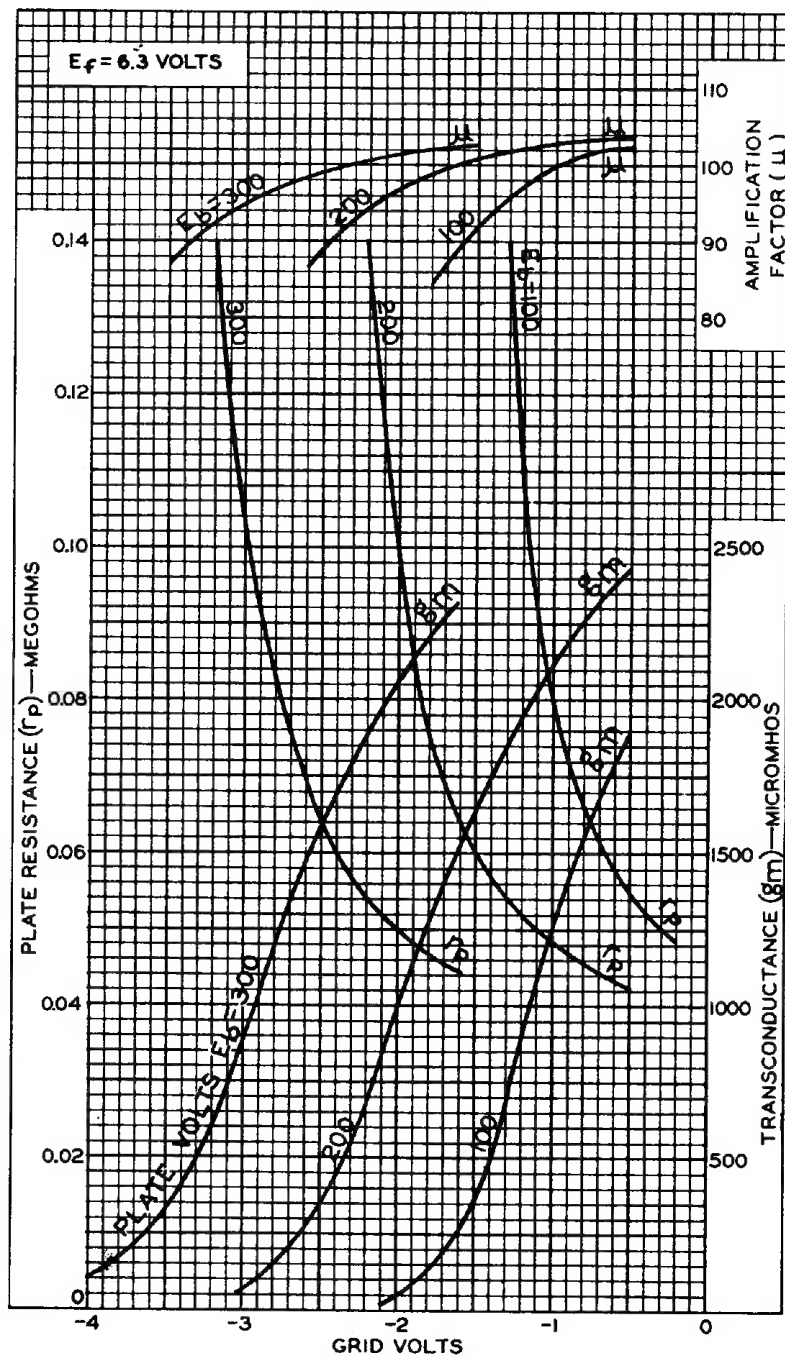


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DATA 2  
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## AVERAGE CHARACTERISTICS Each Unit



92CM-10471

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